the design, and infusing into it a little more character and dignity; nor does there seem to be any positive necessity for continuing the roof or loftier portico over the part of the building behind it, the portico itself, according to the altered plan, being of such ample depth, that there would be sufficient extent of ridge of roof over it, to prevent the portico appearing merely stuck on to the edifice,— at least in any view of that side of the building.

BUDOWNIK.

DEVELOPMENT OF STYLES.

AT a meeting of the Decorative Art Society, held on the 11th inst., a paper was read by Mr. Dwyer, setting forth "Ideas on the development of styles." The imitative faculties it was supposed would, in the earliest states of society, be directed to imprinting fanciful and grotesque devices on domestic implements, such being probably suggested by quaint formations of nature first selected and applied to those uses. Credulity in various ways would become attached to these forms; religious and moral precepts would be symbolized, and history, manners, and ceremonies thus registered. The striking similarities discernible in remains of primitive art found in Mexico, Egypt, and India afforded much matter for remark. He doubted the *practical* utility to designers of searching remotely for the origin of styles, beyond an endeavour to obtain a similar inspiration to that which the artist of an admired work had possessed; and which would be best approached by a consideration of the circumstances of the period at which it had been produced. He ascribed the remarkable difference in styles, generally classed as distinct, to the extensive influence of national and religious habits and feelings, and dwelt upon the great difficulties of defining where any style begins or ends. Warfare had conduced greatly to this confusion, while religion was always stimulating conventionalities. To recognize the beautiful is the soul of art, and it was contended that the difference between the works of the ancients and the moderns, arose from a more immediate attention to natural types on their part, while we have been preferring to imitate the examples left to us of their skill. Several portions of Egyptian, Greek, and Roman decorative art, derivable from vegetable and animate forms were enumerated, alluding also to the symbolical meaning with which most ornaments had been invested, and which, it was argued, ought to be more strictly regarded in the adoption for modern purposes. The lecturer exhibited chalk drawings, one of a capital to a column, designed by himself from the water-cress; others illustrated the beautiful forms which the congelation on our windows assume in frosty weather; and one of the common nettle in blossom, in an inverted position, afforded a type for a chandelier. He said that he did not advocate servility in copying natural products, but contended that ideality ought to imbue all designs for embellishments. He would especially desire to see in our schools for artists, copies from ancient works placed beside the natural archetype from which they were designed, so that the *ideal* might be more correctly appreciated; and he concluded his paper with some remarks upon geometry and proportion, as being essential to the best arrangements of the best ideas.

AMIENS CATHEDRAL.—The *Literary Gazette* says:—Thoughts had been entertained some time ago that it would be possible to restore some of the sculptured figures of Amiens Cathedral which had been greatly mutilated, especially on the outside; but the Government commissioners, Messrs. Duseval and Goze, appointed to examine the cathedral for this purpose, have reported that it would be much better to leave the figures untouched, and only to prevent them from receiving further injury. The general character of the collection of sculptures would then be better preserved than by any modern attempts at imitation. Two iconographical curiosities have been pointed out by these gentlemen as occurring amongst the figures. One is that of the Father holding the world on the end of a finger; the other that of the Holy Ghost represented as a human being seated, and holding the dove on his knee; while the Father and the Son are supporting the symbolical triangle.

OXFORD ARCHITECTURAL SOCIETY.

A MEETING was held in the Society's Room, Holywell, on the 11th inst. The president having announced the presents received, Mr. Millard, hon. sec., proceeded to read the report of the committee, which contained the following:—"The chief matter of interest which the committee has to report is, as usual, the progress of the works at Dorchester. The great south window and the beautiful sedilia, which, together form the portion already contracted for, are now on the verge of completion. The state of the restoration fund is more promising than at the last meeting of the society, for their subscriptions having been received since that time, from the Archbishop of York, the Bishop of the diocese, General Burrows (the patron of the living), and others, these contributions have completed the sum necessary for the second contract, and two members of the society have readily undertaken the responsibility of signing it. No delay will therefore be occasioned by a want of funds for the present; and the committee will immediately put in progress the restoration of the east and Jesse windows, with a portion of the roof of the chancel. In restoring the great east window, an original design will be necessary for the tracery in the rose; and that this somewhat difficult task may be satisfactorily accomplished, the committee believe it will be necessary to call in the assistance of another architect."

Mr. Guy, of Lincoln College, read a paper on the "Architecture of Howden Church, Yorkshire," illustrated by a number of drawings and engravings.

STRIKE IN THE BUILDING TRADES.

THE whole of the building trades of Manchester have turned out, in some instances for an advance in wages, and in others for an abridgment of the hours of labour. The numbers at present out of employ are roughly stated to be as follows:—

Carpenters and Joiners.....	1,700
Bricklayers	300
Bricklayers' labourers	400
Plasterers	200
Slaters	130
Labourers to two last	300
Painters	150
Plumbers and Glaziers	200

The carpenters and joiners of Leeds have given notice of their intention to strike on the 6th of April unless their wages are advanced 2s. per week. At Birkenhead upwards of 1,000 stone masons, carpenters, &c., have struck for an advance from 23s. to 27s. per week. Similar strikes are anticipated at Liverpool, Kendal, Scarborough, and other places. The employers at Manchester have formed themselves into an association for the purpose of protecting themselves from the demands of their workmen. They have caused large posters to be displayed throughout the metropolis, announcing that 4,000 mechanics, belonging to the undermentioned branches in the building trades, were wanted immediately at the following wages, in Manchester and the neighbourhood:—Carpenters and joiners, 28s. per week; bricklayers, 30s. per week; plumbers, 27s. per week; slaters, 26s. per week; plasterers and painters, 26s. per week; and labourers, 18s. per week.

The *Manchester Guardian* states broadly that "a few individuals at the head of the trades' union rule them, and dictate imperiously in all things, when they shall work and when strike, what wages they shall demand, and what offers refuse. Still the best workmen, the most intelligent men, are mainly disposed to accept the offer of the masters, giving them an advance of two shillings, with a return to the old hours. But the union overawes and prevents them from resuming work. It may be asked how men can continue under such thraldom; but the union finds a firm phalanx of supporters in the inferior workmen, many of whom are seldom fully employed, and being a numerous body, they aid the union to overawe and coerce into compliance the superior workmen."

Towards the close of last week upwards of 1,100 railway labourers, employed on the Lancaster and Carlisle line struck work, owing to the contractors having issued a printed notice, intimating that from and after Monday last, the men were to work 10½ hours per day, exclusive of meal times, the time previously being 10 hours a day.

MATHEMATICS FOR ARCHITECTS.

IT cannot be denied, that the kindred professions of architecture and engineering require to be based upon principles in pure mathematics; still less can it be denied that the professors themselves are *in general* but little versed in that essential branch of their respective professions. In fact, we can scarcely take up a professional book, in which there is the slightest approach to mathematics, without feeling convinced that the author is handling unfamiliar tools, and often lacerating his professional character by his clumsy use of them. Often have we felt a suffusion of shame when consulting works of the most eminent men in these professions, and stumbling on their ludicrous attempts to talk mathematically; and we have felt pleased in thinking that such *jejune* productions do not fall under the eyes of mathematicians. They know too well that our professional works contain nothing calculated to repay the trouble of perusal, much less the expense of purchase.

Yet problems of great, very great mathematical difficulty, are daily occurring in both professions. What is the consequence? That our architects and engineers are compelled to trust to unsatisfactory and illusive experiments with models, or to risk at once the consequences of their conjectural designs. They sometimes succeed—*often* when they keep pretty close to older and tried plans; but occasionally the most lamentable failures take place, and sometimes attended with fearful loss of life as well as property. A moderate portion of mathematical skill would have prevented these and other evils.

Again, the unnecessary strength given to parts of a structure, and unnecessary demand of generative power in machines, are so common, that there are perhaps few buildings or machines at present in existence, which form entire exceptions to the charge. Now the strength of a structure is, in reality, the strength of its weakest part, and even the weakest part may be weakened still more by its connection with the other parts; and the power of a machine is only that part of the initial force which is effectively conveyed to the "working points." All else is wasted, whether of strength or power; and, in fact, so much capital might as well be thrown into the ocean at once, as employed in these unprofitable parts of a structure or an engine.

A competent knowledge of mathematical science would enable the professional man, *in a very great degree*, to avoid this profusion of expenditure, and in nearly every case to prevent those frightful catastrophes that are periodically occurring from falling buildings and exploding machinery. Even on the inquests to which these terrible fatalities give rise, the conflicting and often very absurd testimonies and opinions of professional men are most remarkable; and they are gradually convincing the public that the professors themselves are destitute of all accurate knowledge of the *principles* of their own art, and are guided by mere empirical rules, the slightest departure from which becomes professional temerity, and a most wanton sporting with property and life! Is this as it should be?

Were architecture and engineering empirical arts—were it not possible to determine *à priori* the results of all strains and pressures in a building, and the loss of power attendant upon any given train of machinery—were it not possible to compute, by unerring rules, the actual force and its direction at any given point, either of a structure or a machine—then, indeed, this reproach could not lie at the door of either profession or of its Institute. Since, however, *they need not be* empirical professions, and as a comparatively moderate acquaintance with mathematical science would redress the greater part of the wrongs which professional ignorance inflicts on the public, it behoves us to make such corrections ourselves, lest they be forced upon us in a more galling form by the decision of the legislature. In fact, as any person, no matter his ignorance of all that relates to the subject, may at his pleasure dub himself "C. E." or "Architect," and as in the

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